IGspectrum's Web Applications

IGspectrum's extensive portfolio of web applications are cloud-based with access available 24/7 from any supported browser. Our hosting arrangements and applications conform to: data protection legislation; organisational information governance policies; Data Security & Protection requirements and are provided from a secure ISO27001 accredited facility with a HSCN connection available.

IGspectrum is providing some of the key applications for the new digital hospital at Chase Farm (part of the Royal Free London NHS Foundation Trust) including:

- IGeDocs – all historic paper documents are held electronically and are viewed via this service.

- IGeForms – all key electronic forms which are not being delivered as part of the new EPR will be provided by this service.

- IGsar – all Subject Access requests are processed by this service and electronic and/or paper- based records are automatically loaded. After review and approval, the documents are made available via a secure portal to the requestor.

IGspectrum provides a number of electronic forms, with associated workflows, accessible directly by patients. An example of this is the Family History Form for the West Midlands Regional Genetics Service which enable patients and their relatives to complete their personal history directly from their devices.

These and some of our other web applications are described in further detail below and are categorised into the following groups:

1. The Digital Hospital
2. Patient / Specialty Portals & Private Patients
3. Infrastructure & Cyber-Security Testing

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Clinical Viewer (IGcv)

A solution to your paperless objectives. All historical paper documents held in the medical records files may be viewed.

Collection, scanning and paper destruction capabilities can also be provided. Electronic documents are also uploaded if required.

Clinical/medical records and case notes are viewable in their original format. Users are categorised to ensure full user control with access only provided with those registered to view on a specialty or other agreed basis. The service provides a twin field global search alongside a meta-data search capability (e.g. Hospital number, NHS number, etc.).

Documents can be scanned locally by hospital users and directly uploaded into the service.

Features and Benefits

- Single repository for medical records / case notes
- Supports navigation and image management functions
- Extensive search facilities
- Automation and digitisation of case notes quickly and cost-effectively
- Easy and secure access to case notes through any internet-enabled device

Electronic Document Management (IGeDocs)

A solution to your paperless objectives. Specifically designed for all documents not part of the patient medical record with extensive search, navigation and viewing capabilities.

Document collection, scanning and paper destruction capabilities are provided. Upload of existing electronic documents are included.

Documents are categorised by department/specialty and document type. Users are categorised (Organisation Admin/Document Manager/Document User) to ensure full user control with access only provided with those registered to view on a document type basis. The service provides a twin field global search alongside a meta-data search capability (e.g. MRN, NHS number).

Documents are scanned locally by hospital users and directly uploaded into the service. Emails containing information that needs to be stored are loaded into the service automatically by copying (Cc..) the email to a specific mailbox.

Features and Benefits

- Single repository for all paper documents and important emails
- Extensive search facilities
- Automation and digitisation of forms quickly and cost-effectively
- Easy and secure access to documents through any internet-enabled device

<u>Data Sharing Portal (IGdsp)</u>

Our unique portal provides a single web-based repository where all reference documents e.g. information sharing frameworks, protocols, agreements are held and managed.

It enables evidence to be shared on Privacy Impact Assessments (PIAs) and Risk Assessments and signoffs by both Caldicott Guardians and DPOs. A key feature is the ability to manage multi-agency agreements.

<u>Features and Benefits</u>

- Single repository for information sharing protocols, agreements, templates
- Automatic alerts prior to expiry
- Portal can be opened to the general public
- Single view of all agreements
- Multiple information sharing agreement templates available
- Administrator and user access
- Easy review and management of all agreements
- Agreements recorded by partner organisation
- Tiered security access enables sharing inside and outside the NHS
- Optional existing templates can encourage rapid acceptance and implementation

Electronic Referrals - (IGrefer)

Incorporating integrated workflow management this provides a centralised, intuitive, platform on which all incoming and/or outgoing referrals can be digitised, automated, accessed, transferred and managed.

Rules and workflows for completing and receiving forms are fully automated and information is captured, stored and made available securely. Trust, hospital and departmental dashboards are included.

One specific example is the Queen Square Neurophysiology e-requesting service which permits external referrals for EEG, EMG, EP tests at Queen Square Neurophysiology. This service fully integrates with the internal clinic management systems. Once reports are drafted these are provided back to the referrer via a fully secure report repository.

Features and Benefits

- Secure online form submissions using any internet-enabled device with a simple e-form creation and digitisation process requiring no software installation
- Secure system access with data held in an encrypted database meeting all the confidentiality requirements of the IG Toolkit together with a full governance and audit capability
- Flexible navigation and image management functions which provide ease of use
- Subsequent updates to the referral/query are distributed as appropriate providing a consistent, secure and current view for all parties
- On-line data validation resulting in increased data accuracy
- Automated workflow and embedded approval process which ensures security, consistency and currency of information and status for referrals and queries with information available and interchangeable between both referrers and recipients which enhances communication

Examples

Mental Health Referrals

Referrals to A&E from a specialist mental health trust.

Referrals to Neurology and Neurophysiology Department

External referrals into this department are fully managed with in service communication with the referrer possible.

Maternity Referrals

Mum's-to-be self-referrals together with referrals from GPs.

Bespoke Electronic Forms (IGeForms)

The Electronic Forms service, with integrated workflow management, provides a single centralised, intuitive platform on which existing forms are automated, accessed and managed using any device with a web browser.

Rules and workflows for completing and submitting forms are fully automated and all information is captured, stored securely and made available to all that require access.

Features and Benefits

- Secure access and online submissions using any internet-enabled device
- Includes approval, alerting and broadcasting functionality
- Automated workflow and approval processes
- Different levels of user access to submit and view data
- Data accuracy increased through on-line validation

Examples of Patient completed forms include:

Family History Form - Allows patients and other family members to provide historical and current medical information using their own home-based computers and tablets.

Maternity Referral – see Maternity Self-referrals (IGmat)

Private Patients – see Private Patients Management (IGpp)

Examples of other forms currently in use are:

MDT Referrals - This workflow and electronic forms service has recently been deployed to support the Vascular Multi-Disciplinary Team Meeting process
.
Admission & Discharge to Social Care forms - This innovative, easy to use e-Forms service is being used by 260 ward staff as part of a Trust's 'paperless' strategy.

Private Patient Service - This enables patients, and their referrers, to securely submit enquires and medical records to the Private Patients Referral Team.

Maternity Self-Referrals (IGmat)

This service allows mums-to-be to self-refer to any maternity clinic within a trust.

The referral is made via an e-form on the Trust website. The mum to be provides basic demographic and summary medical history about herself and then makes a selection of the particular clinic she would like to register at.

When complete, the form is received by the relevant maternity unit and an appointment can be made. The referral is automatically relayed to the mum-to-be's GP so that they have full knowledge of the self-referral.

A GP may also use the service to refer a mum-to-be attending their practice.

Features and Benefits

- Mums-to-be can self-refer and choose their preferred maternity clinic
- Relevant materials and brochures are provided automatically on first enquiry
- The GP receives notification of the self-referral
- Service also available for GP referrals
- Significant take-up of the Trust's maternity services

Hepatitis Virtual Clinic (IGhvc)

This service provides a platform for full automation and management of many clinical and administrative aspects of the Hepatitis Telephone Clinic at Royal Free Hospital.

Appointments, blood tests and investigations are scheduled according to specific care pathways with reminders and alerts automatically sent to patient, clinic nurses and clinicians. The results of the telephone appointment are recorded after which either care pathways are adjusted or interventions planned.

The results of Blood Tests and Investigations are automatically loaded into the service with other patient and demographic information received from the hospital EPR and via the NHS Spine PDS and SCR services. GP letters are generated within the service and then submitted automatically to the relevant GP practice.

Features and Benefits

- Full feature virtual clinic managing patients through pre-planned pathways
- Includes appointment management, reminders and alerts
- Telephone interaction is captured electronically
- Can be extended to include a recording of the telephone appointment
- GP and Patient letters can be auto-generated and sent from within the service

Subject Access Requests (IGsar)

This facilitates the access of medical records to the authorised requestor via a secure portal and provides end to end support for the SAR process from request through to fulfilment.

It provides for clinician redaction and approval prior to publication to a secure web site. The patient and any authorised third party, including Solicitors, then access the medical records in their original state. Records can be navigated and downloaded.

Features and Benefits

- Capture of the Subject Access Request application and security credentials
- Patient medical records scanning and uploading from the physical case file
- Case file access via a user-friendly screen set up
- Supports navigation and image management functions
- Full redaction capability
- Patient medical records release approval process
- Download and print options included
- Can be interfaced to Trust electronic document management systems
- Efficiency and cost reductions associated with stationery, printing and postage
- More secure than sending paper or electronic media by mail
- IG compliant access for patients and or their authorised representatives

Liver Transplant Tracking (IGltt)

This service is used to proactively manage post-operative liver transplant patients and provides data on each patient along with patient management facilities.

There is built in logic to assist in data entry and the facility to populate blood group and patient demographics from PDS and EPRs. The service also provides a patient dashboard with full reporting.

Features and Benefits

- Proactive management of post-operative liver transplant patients
- Automatic load of patient and blood group information
- Patient dashboard
- Examples

Patient Consultation Recording (IGpcr)

This innovative service provides patients with access to voice recordings of their hospital consultation appointments.

Clinic appointments are automatically loaded. Patients are informed about the recording service and their permission is recorded.

Recording is then initiated with the ability to pause/restart at any time. Once the main recording is concluded the clinician may record actions and outcomes for incorporation in standard template letters, e.g. back to the referring GP.

The service utilises state of the art voice-to-text conversion capabilities to generate GP and Patient correspondence.

Features and Benefits

- Full voice recording of a consultation
- Automatic load of clinic appointments
- Automatic load of pathology results
- Automatic transcription into the GP Letter
- Auto-generation and despatch of the GP letter
- Patient portal enabling the patient / family / carer to listen to the recordings

HPB Multidisciplinary Request Portal (IGhpb)

The service is designed to improve the efficiency of HPB MDTs by ensuring that submissions/referrals contain all the necessary information for a successful MDT review.

The service supports the MDT administration process by greatly reducing unnecessary email exchanges with referrers and provides overview, alerting and tracking capabilities, via a dashboard, of all new and outstanding submissions.

The new service allows the MDT to be totally managed from within the portal with only the IEP imaging being external. The mandatory fields will significantly reduce the number of requests 'rolled over' due to missing information.

The portal will include an interface to the Personal Demographic Service (PDS) to allow auto-filling of the request form based on combinations of NHS Number, First Name, Last Name and DOB.

Features and Benefits

- Referral information ensures that MDT requirements are satisfied
- MDT outcomes achieved on average more speedily
- MDTs now managed within the new portal

NeuroResponse Portal (IGnr)

The NeuroResponse Portal is designed to engage people living with Multiple Sclerosis (MS) and their families. The first cohort at the Royal Free Hospital comprises approximately 500 patients living in the London Borough of Barnet.

Within the cohort there are a number of patients that frequently attend A&E with symptoms such as UTI that may have been able to be treated in the community.

To prevent this the NHS 111 service is being adapted to provide a specialist response to these patients. To support this a summary care plan is agreed with the patients. This care plan will be co-completed by patients and clinicians on the online Neuro Patient Response Form, part of the NeuroResponse Portal.

Patients access the partially completed form, make comments and commit if they are happy with it. Once complete the information is incorporated into the Adastra system for use by the NHS 111 service.

Features and Benefits

- New service offering a specialist response via the NHS 111 Service
- Creation of an agreed care plan for the patient with clinician sign-off
- Automatic load of the agreed care plan into the NHS 111 Service

Private Patients Service (IGpp)

This service provides full workflow support and management of all aspects of the patient episode for private patients.

The Private Patients unit receive automated notifications of enquiries and can then request the secure transfer of patient records from referrers who are often in other countries. This fully-functional service includes full episode management, clinician allocation and management, appointment selection and finally the secure transmission of any reports or updated records back to the referrer.

Features and Benefits

- Automatic management of referrals, appointments, patients, episodes and clinicians
- Safe and secure transfer of medical and other records
- Full workflow coverage
- Links to invoicing systems are provided
- A full history of all patient episodes is maintained

Encryption of Documents and Files (IGencrypt)

The data encryption process which meets the AES 256 standard supports the complete anonymisation of all content in documents and files shared across nhs.net and beyond.

Encrypted information is reconstituted once the receiving party has been authorised and provided with a decryption code.

Features and Benefits

- Encrypts any document or file regardless of content
- Full encryption to AES 256 standard
- Secure online access using any internet-enabled device
- Decryption by any recipient only with originating user permission
- Secure online access using any internet-enabled device
- Decryption by any recipient only with originating user permission
- Simple to use
- Rapid deployment
- Data shared securely

Data Encryption and Secure Patient Data Sharing (IGpseudo/IGautopseudo)

Enables data extraction and sharing of patient confidential data (PCD) pseudo-anonymised or anonymised at source.

It conforms to: Pseudonymisation Implementation Project DOH 2010 IGTK requirements for compliant, safe, ethical and secure sharing of data across communities.

Features and Benefits

- Ability to securely share information with other NHS organisations
- Supports risk stratification whilst maintaining data security and confidentiality
- Efficient system that exceeds IGTK requirements to optimise effectiveness
- Uses the NHS number as the patient identifier or Pseudonyms can be created where no NHS number exists
- Service access from any web browser
- Secure, controlled access and log for all users
- Full audit of all user activity
- Effective enabler for the data sharing programmes e.g. population risk stratification
- No software installation required

Secure Health Platform (IGpaas)

Provides the highest level of IG compliance and security to Healthcare Service providers without the cost and timescales involved in developing and commissioning their own platform.

Dedicated or cloud servers are selected and various levels of resilience and availability are possible. A HSCN connection is available. ISO27001, Cyber Essentials and all other NHS mandated accreditations are included.

Features and Benefits

- A secure service which can be deployed quickly and effectively
- Fully compliant with regulations including DoH and IGSOC2 (IG Toolkit)
- HSCN connectivity available
- Protected by periodic penetration testing – see Penetration Testing (IGsecurity) service
- Hosted at world-class, secure facilities managed by experienced BS27001 accredited staff
- 100% guaranteed network and infrastructure uptime
- Delivery partners are world leaders in hosting, computing and security
- Uptime guarantee ensures that your database is always available
- Hosted configuration meets your required service levels and subsequent dependencies

Penetration Testing (IGsecurity)

Cyber-security testing applications, networks and WiFi security covering the use of manual and automated methods to detect internal and external threats and protect business applications and data, either in static or dynamic form.

It emphasises application fortification throughout design, development, deployment, upgrade, and maintenance phases and we manage any CREST compliant services required through our partner.

Features and Benefits

- Attempts on DNS zone transfers for public IP addresses
- Enumeration of services and Enumeration command support
- OS detection and build version fingerprinting
- Password attacks for public IP addresses
- Firewall traversal attacks
- Checks for anonymous access and file/folder privileges
- Configuration files will be searched and access attempts
- Email spoofing and mail / web/ relay tests
- Web crawls, method support and web directory enumeration
- Upload and Input validation attempts
- Currency with CYBER latest threats enables a high protection level
- CREST/CISSP conformance ensures high standard of security
- Comprehensive report enables pro-active protection interventions